STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF MAY 10-11, 2007
Prepared March 30, 2007

ITEM NUMBER **22**

SUBJECT **Reissuance of Waste Discharge Requirements/NPDES Permit for Cuyama Community Services District Wastewater Facility, Santa Barbara County--Order No. R3-2007-0020, NPDES Permit No. CA0048089**

KEY INFORMATION

Location:	5500 Highway 166
Type of Waste:	Municipal
Current Design Capacity:	0.15 MGD
Present Volume:	0.04 MGD.
Current Treatment:	Secondary - extended aeration, clarification, chlorination, dechlorination
Disposal:	Salisbury Creek (tributary to Cuyama River)
Existing Order:	Waste Discharge Requirements Order No. R3-2002-0052
This Action:	**Adopt Waste Discharge Requirements Order No. R3-2007-0020**

SUMMARY

The existing NPDES Permit, Waste Discharge Requirements Order No. R3-2002-0052 for Cuyama's Wastewater Facility, expires May 31, 2007. This proposed Order No. R3-2007-0020 is the reissued permit. Proposed changes in requirements from the existing Order reflect applicable statewide regulations, primarily the National Toxics Rule, California Toxics Rule and State Implementation Policy. The proposed Order looks considerably different from the existing document, reflecting the statewide standardized permit format. This standardized format includes a Fact Sheet (Attachment F of the Order) detailing the basis for requirements specified in the Order and Monitoring Program. The standardized permit format also includes Definitions and Standard Provisions consistent with permits issued state-wide. Proposed changes are described in detail below.

DISCUSSION

Purpose of Proposed Order: Order No. R3-2007-0020 is proposed as revised/reissued Waste Discharge Requirements (WDR) for Cuyama Community Services District (CSD) Wastewater Facility, Santa Barbara County. The proposed Order is based on the federal Clean Water Act as it applies to municipal dischargers and continues existing permit conditions with some revisions (as described below). The proposed Order implements discharge requirements specified in the California Water Code; National Toxics Rule; California Toxics Rule; State Implementation Policy; the Water Quality Control Plan, Central Coast Basin (Basin Plan); and those based on staff's best judgment. The source of each specific requirement is described in the Fact Sheet (Attachment F of the proposed Order).

Facility Description: The treatment system consists of an extended aeration activated sludge process, clarification, chlorine disinfection, and dechlorination. Biosolids are anaerobically digested, dewatered in on-site drying beds and periodically hauled away for land application/disposal. The treatment facilities (upgraded in 2001) have a design capacity of 0.15 MGD and receive approximately 0.04 MGD of municipal wastewater from the community of New Cuyama. The treatment plant location and processes are depicted on Attachments A and B of the proposed Order.

Cuyama CSD discharges secondary effluent to Salisbury Creek, an intermittent tributary to the Cuyama River. Typically, the receiving environment is a dry wash; however, during wet weather surface flow carries the discharge to the Cuyama River. Accordingly, surface water discharge requirements are implemented through the existing and proposed orders.

Discharge Limitations: Federal requirements (40 CFR 133) for secondary treatment of municipal wastewater (generally defined as biochemical oxygen demand and suspended solids of 30 mg/L monthly average) are included in the proposed Order. Effluent limitations based on the California Toxics Rule (CTR), State Implementation Policy and the Basin Plan are carried over from the existing permit. Such limitations include those specified in Section IV.A.1. for settleable solids, pH, acute toxicity, bromodichloromethane, dibromochloromethane, fecal coliform bacteria and chlorine residual. The proposed permit implements the Basin Plan narrative requirement for no discharge of toxics in toxic amounts as a numeric effluent limit of 1 TUa, where it had previously been implemented as a narrative limit.

The existing Order includes interim effluent limits for bromodichloromethane and dibromochloromethane (Toxic Rule constituents showing reasonable potential to be present in effluent). The existing Order also requires submittal of a technical report describing how the discharger proposed to comply with final limitations for these constituents (final limits specified in the existing Order). The Discharger has not demonstrated compliance with the final effluent limits for bromodichloromethane and dibromochloromethane, and additional sampling confirms constituent concentrations in the discharge in excess of final limits. Compliance with these effluent limitations is discussed in more detail below (in Compliance History section).

Receiving Water and Groundwater Limitations are expanded from the existing Order to include applicable water quality objectives specified in the Basin Plan.

Monitoring and Reporting Program: The proposed Order includes a monitoring and reporting program to evaluate compliance with requirements. The monitoring program specifies influent, effluent, biosolids and receiving water monitoring. Monitoring requirements are carried over from the existing Order, with the following exceptions (described in further detail below).

- Water supply monitoring eliminated
- Effluent TDS monitoring eliminated
- Bacteria monitoring revised
- THM monitoring frequency increased
- CTR pollutant monitoring added
- Biosolids constituent monitoring added
- Receiving water monitoring added
- Report submittal dates revised

The basis for recommended changes is described below and in the Fact Sheet (Attachment F). The remainder of the monitoring program is carried over from the existing Order.

Water Recycling: Currently, none of the Discharger's treated wastewater is reused (recycled).

Proposed Changes to Requirements: The proposed Order incorporates changes in requirements due to implementation of the state-wide standardized permit format, National Toxics Rule, California Toxics Rule, State Implementation Policy, and corresponding revisions to monitoring requirements. Following are the specific changes proposed and the corresponding rationale for those changes.

Change	Section	Rationale
1. Acute Toxicity narrative limit (discharge shall not be toxic) is replaced with a 1.0 TUa daily maximum.	IV.A.1 (page 8)	Numeric limit replaces narrative with same meaning (discharge shall not be toxic, as required in Basin Plan).
2. Interim limits for bromodichloromethane and dibromochloromethane are deleted, final limits carried over to proposed Order.	IV.A.1 (page 8)	Effluent monitoring confirmed potential for these constituents to be present in excess of CTR criteria.
3. Carbon tetrachloride limit (in existing Order) deleted from proposed Order.	IV.A.1 (page 8)	Effluent monitoring confirmed no reasonable potential for this constituent to be present in excess of CTR criteria.
4. Receiving water and groundwater limitations are expanded to include applicable Basin Plan criteria.	V.A & B (pages 9-11)	Additions implement the Basin Plan water quality objectives for discharges to surface and groundwaters.
5. Monitoring requirements are expanded to include quarterly THM monitoring until consistent compliance is demonstrated, CTR pollutants once in life of permit, receiving water hardness and CTR pollutants, and biosolids constituents.	MRP IV.A (page E-4) MRP VIII.A (page E-7)	Constituent monitoring to evaluate compliance with effluent and receiving water limitations and federal biosolids disposal or reuse criteria.
6. Fecal coliform bacteria monitoring replaces total coliform monitoring.	MRP.IV.A (page E-4)	Fecal coliform monitoring to evaluate compliance with effluent limitations.
7. Effluent TDS and water supply monitoring is deleted from proposed permit.	MRP.IV.A (page E-4)	Past effluent and water supply monitoring demonstrate consistent results without potential to impact water quality.

COMPLIANCE HISTORY

As stated above, the Cuyama treatment facility was upgraded in 2001. Since that time, discharge has consistently complied with requirements, except for those regarding coliform monitoring frequency and effluent THM limits (trihalomethanes including bromodichloromethane and dibromochloro-methane).

The Order (existing and proposed) includes effluent fecal coliform bacteria limits of 200 MPN (log mean) and 400 MPN (no more than 10% of all samples). The existing monitoring program calls for total (rather than fecal) coliform bacteria monitoring; therefore, very little fecal coliform bacteria data is available. However, fecal is a subset of total coliform, and total coliform data has remained below the effluent limits for fecal.

Accordingly, staff concludes that the discharge has consistently complied with fecal coliform bacteria limits, based upon total coliform data. Due in part to the remote location of the facility (70+ miles from laboratory), the Discharger has not always met the weekly coliform monitoring frequency. This problem has been resolved, has not occurred in the past 18 months, and there were no operational

upsets or other factors indicating noncompliance during those missed sampling periods. Based upon the preceding discussion, staff believes the Discharger has consistently complied with bacteria limitations.

Effluent monitoring by the Discharger and Water Board staff indicates discharges of bromodichloromethane and dibromochloromethane concentrations in excess of California Toxics Rule standards. These constituents are byproducts of chlorinating the effluent, and staff does not expect that the Discharger will comply with these limits without modifying its disinfection or disposal practices.

During the 2002 permit renewal process, the Central Coast Water Board approved revised coliform bacteria limits (revised from 23 MPN total coliform bacteria to 200 MPN fecal coliform bacteria). This revision was based primarily on the following factors.

1) The revised limit is consistent with U.S. EPA and Basin Plan standards for protection of water-contact recreation areas (the most restrictive and likely beneficial use of the receiving water).

2) Compliance with the revised standard would allow the Discharge to reduce chlorine use and thereby reduce chlorination byproducts, optimally to the point of compliance with CTR limits.

It is not clear whether Cuyama reduced chlorine use in response to the revised limits. However, the current operations result in non-compliance with effluent limits for bromodichloromethane and dibromochloromethane.

This non-compliance leaves the Discharger with two compliance options: a) modify the disinfection system to reduce THM generation, or b) eliminate the surface water discharge. The Discharger is pursuing grant funding to eliminate the discharge and implement land disposal. In order to ensure timely evaluation of land disposal options, Provision VI.C.2 is included in the proposed Order. The added provision requires completion of discharge alternatives feasibility evaluation by the end of the permit term. It should be noted however, that the added provision does not in any manner relieve the Discharger from mandatory minimum penalties assessed for violation of effluent limitations. Therefore, it is vital that the Discharger pursue compliance options as quickly as possible, in order to minimize future discharge violations and corresponding enforcement actions.

ENVIRONMENTAL SUMMARY

Waste discharge requirements for this discharge are exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et. seq.) in accordance with Section 13389 of the California Water Code.

COMMENTS

Biosolids monitoring - After distribution of the draft permit for public comment, staff noted that biosolids volume and constituent monitoring was not included. Although the Discharger disposes of biosolids infrequently, volume and constituent monitoring should be included for any biosolids disposal that might occur during the life of the permit. Accordingly, section IX (MRP page E-7) is added to evaluate compliance with the proposed Order's Special Provision C.5 (Biosolids Management).

Central Coast Region's Standard Provisions - Standard Provisions circulated with the draft permit included only federal standard provisions (part of the standardized permit template). The Standard Provisions and Reporting Requirements adopted by the Central Coast Water Board in

1985 are not entirely included in the template standard provisions. Therefore, the Central Coast Region's Standard Provisions are added to Attachment D of the proposed Order. These provisions are the same as those incorporated into the existing Order and consistent with all NPDES permits throughout the region.

Endangered Species Act - Finding P is added to the proposed Order and is consistent with the standard permit template. This finding was omitted from the draft permit circulated for public comment. Subsequent findings have been renumbered from the public comment draft correspondingly.

Cuyama CSD – The Discharger submitted a brief letter indicating that it plans to pursue eliminating the discharge by implementing land disposal options, when funding for such projects becomes available. In the interim, the Discharger indicated its intent to comply with permit conditions.
Staff Response: No response needed.

SB Co. Planning – No comments received
SB Co. Envi. Health – No comments received
CA Fish & Game – No comments received
SWRCB – No comments received
Tetra Tech – No comments received
U. S. Fish & Wildlife – No comments received
U. S. EPA – No comments received

RECOMMENDATION

Adopt Waste Discharge Requirements Order No. R3-2007-0020, as proposed.

ATTACHMENT

1. Proposed Order No. R3-2007-0020 with Attachments
   A. Definitions
   B. Map of Facility Location
   C. Treatment Facility Flow Schematic
   D. Standard Provisions
   E. Monitoring & Reporting Program
   F. Fact Sheet

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